



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,362	11/29/2001	David Elie-Dit-Cosaque	135886	5532
24587	7590	07/11/2005	EXAMINER	
ALCATEL USA INTELLECTUAL PROPERTY DEPARTMENT 3400 W. PLANO PARKWAY, MS LEGL2 PLANO, TX 75075			WONG, BLANCHE	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 07/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/998,362	ELIE-DIT-COSAQUE ET AL.	
	Examiner	Art Unit	
	Blanche Wong	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 November 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 7, 9, 11, 15, 16, 18 and 20 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6, 8, 10, 12-14, 17 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                    |                                                                             |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____                                                |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/01</u> .                                                               | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Specification*

1. The abstract of the disclosure is objected to because possible typographical error. Examiner suggests replacing the word – that – in ln. 13 of sentence “Costs are assigned ... links that have ... that links that do not have ... ) with “than”.
2. The disclosure is objected to because of the following informalities: possible typographical error. Examiner suggests replacing the word – that – in para. [0009], ln. 3, of sentence “Costs are assigned ... links that have ... that links that do not have ... ) with “than”.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1,5,9,11,15,18,20** are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Su et al. (U.S. Pat No. 6,850,705).

With regard to cl. 1 and 11, Su discloses in each node (OXC 802 in combination with controller 812 in Fig. 8), maintaining a database (RAM 816) of information regarding the status (results, col. 9, ln. 46) of the network including a information associating channels in each link of the node to one or more protection paths (bucket data, col. 9, ln. 47; bucket data are failure events used to calculate protection paths, col.

5, ln. 33-45) and information associating channels in each link to respective working paths (calculation of protection paths, col. 9, ln. 46-47, requires knowledge of working paths);

in response to receiving a request for a new protection path (col. 9, ln. 57) to protect a defined working path in one of said nodes;

using the database of said one node to identify links that have at least one shareable channel which may be shared (sharing potential, col. 5, ln. 46) between the new protection path and one or more existing protection paths;

using the database of said one node to identify links that do not have a shareable channel but do have an unused channel (link 4 has to reserve an extra wavelength if it is selected as part of a protection path for link 2 b/c link 2 requires two wavelengths, col. 5, ln. 54-55; therefore, there are unused channel) that may be used for said new protection path;

assigning costs ("width" col. 5, ln. 65, is used as to define the marginal cost, col. 6, ln. 21, as "narrowest", col. 6, ln. 22, or "exhausted" (width=0), col. 6, ln. 26) to identified links; and

determining (using link metric, col. 5, ln. 63 and col. 6, ln. 36-38) a protection path using said identified link based on said costs.

With regard to cl. 5 and 15, Su further discloses a setup message 704 (setup message from source node 700 to terminal node 724 in Fig. 7) to each node on the protection path, wherein the setup message includes a working path identifier (x denotes the amount of reserved wavelengths on a link in order to carry the traffic of

demand  $u$ , col. 4, ln. 37-39;  $y$  denotes the wavelength reservation on a link for demand  $u$  in case link fails, col. 4, ln. 39-40).

With regard to cl. 9 and 18, Su further discloses a step of identifying links (link metric, col. 3, ln. 43) that are not used by the defined working path (maximizing wavelength sharing, col. 3, ln. 44, and utilizing complete knowledge of the demand set  $U$ , col. 4, ln. 33 and 46).

With regard to cl. 11, Su further discloses a plurality of nodes (80,82,84,86,90,92,97,98,99 in Fig. 1) coupled by communication links (88,94,96 in Fig. 1), each node (OXC 802 in combination with controller 812 in Fig. 8) comprising router circuitry (OXC 802).

With regard to cl. 20, Su further discloses a switching matrix (OXC 802 in Fig. 8).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 7 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Su in view of Sha (U.S. Pat No. 6,868,057).

With regard to cl. 7 and 16, Su discloses the method of cl. 1 and the network of cl. 16. However, Su fails to explicitly show a status for each channel of each link.

In an analogous art, Sha discloses a status (active or standby, col. 5, ln. 22-38) for each channel of each link (protection link in combination with service line, col. 3, ln. 35).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add status identification to channels or links. The suggestion/motivation for doing so would have been to attain simple decision logic (col. 3, ln. 3-4). Therefore, it would have been obvious to combine Sha with Su for the benefit of having statuses to obtain the invention as specified in cl. 7 and 16.

***Allowable Subject Matter***


7. **Claims 2-4,6,8,10,12-14,17,19** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW  
BW,  
July 7, 2005

  
CHI PHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600 7/8/05